DOCUMENT RESUME

ED 138 685 UD 016 943

AUTHOR Soles, Stanley
TITLE Louis D. Brandeis High School Billingual Program; School Year 1974-75.
INSTITUTION New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
PUB DATE 75
NOTE 26p.; New York City Board of Education, Function No. 09-57607

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Ability Grouping; Algebra; Average Daily Attendance; *Bilingual Education; *English (Second Language); Grade 9; Grade 10; Grade 11; Grade 12; Reading Comprehension; *Remedial Mathematics; *Remedial Reading; *Spanish Speaking
IDENTIFIERS *Elementary Secondary Education Act Title VII; French Speaking; *New York (New York)

ABSTRACT

This evaluation report is a description of the Brandeis High School Bilingual Program in its third year of operation. The program was funded under the Elementary Secondary Education Act Title VII. Four hundred eighty-five students who were in need of remedial work in English and/or speech were enrolled in the program. The main language in the home for these students was either Spanish or French. The objectives of the bilingual program were to improve the students' reading ability and language skills in Spanish and in English, to improve mathematics skills, to increase average daily school attendance, and to implement the program according to proposal guidelines. Bilingual instruction was provided in the major curriculum subject areas. Students were grouped according to their diagnosed condition and/or their need for developing English proficiency. An (ESL) program was implemented in terms of five progressive levels of competency. Correlated T tests with significance levels of .05 were used to compare bilingual program results with schoolwide norms. Pre and posttest ratings on standardized instruments were used to assess the bilingual students' improvement. The report concluded that students in the bilingual program did show significant gains in reading Spanish, in speaking English, and in mathematics skills. The average daily attendance of the students in the bilingual program was significantly higher than that of the regular school population. No data was available for the English dominant students. Tables for reading results, ability to speak English on Puerto Rican Fluency scales, mathematics, and school attendance are included. (Author/JP)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

EVALUATION REPORT

Function No. 09-57607

ED138685

LOUIS D. BRANDEIS HIGH SCHOOL BILINGUAL PROGRAM

SCHOOL YEAR 1974-75

DR. STANLEY SOLES

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

VD 16943

An evaluation of the New York City school district educational project funded under Title VII of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed for the Board of Education of the City of New York for the 1974-75 school year.

2

DR. ANTHONY J. POLEMENI, DIRECTOR

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF EDUCATIONAL EVALUATION
110 LIVINGSTON STREET, BROOKLYN, N. Y. 11201

TABLE OF CONTENTS

Chapter		Page
I.	Program Description	1
II.	Evaluation Objectives and Procedures	6
III.	Findings	9
IV.	Summary of Major Findings, Conclusions and Recommendations	20

LIST OF TABLES

Table		Page
1.	Test of Significance for Reading in Spanish Dominant Students--Brandeis High School Bilingual Department. .	9
2.	Sign Test of Significance for Students for Ability to Speak English on Puerto Rican Language Fluency Scale A and B	11
3.	Test of Significance for Mathematics--Brandeis High School Bilingual Department	13
4.	Test of Significance for the Difference Between Mean Percent of Students in Bilingual Program and Those in Regular Program on Citywide Algebra Examination . .	13
5.	Distribution of Students in School Attendance	16

Chapter 1. PROGRAM DESCRIPTION

This is a report of the evaluation of the bilingual program at Louis D. Brandeis High School in Manhattan for the school year 1974-75. This is the third year of a five year program designed to meet the educational needs of 750 students over the five year period.

A survey conducted in October 1973 indicated that among the students, the total Hispanic and foreign background population, 45 percent (1,003 out of 2,212 students) were rated on the New York City Language Diagnostic Survey, as speaking little or no English or speaking English hesitantly and in need of remedial work in English and/or speech.

This survey showed that 37 percent of the student population was from non-English speaking dominant language environments. The main language in the home for these students was either Spanish or French. The survey results showed, furthermore that of the students served by the Brandeis program about 45 percent of the total Hispanic and foreign background population were rated as speaking little or no English and in need of remedial work in English and/or speech.

Reading statistics as well as other data regarding language environment were provided within the body of the proposal to give a description of the type of student population served by Brandeis High School. For example, in terms of reading scores 79 percent of the ninth graders in the school were two or more years behind the grade level as measured in April of 1974 on the standardized reading tests. It is clear that there is a need to provide bilingual educational programs for these students.

This report is limited to the third year of the operation of the program (1974-75) for a total of485 students who were enrolled in the Brandeis High School Bilingual Program. There were 410 Spanish-speaking students; 50 French-speaking students and 25 English-speaking students. In addition, the bilingual instruction was provided in the major curriculum subject areas.

The Brandeis High School Bilingual Program operates as a department within the high school. The development of the bilingual

education department from the English as a Second Language (ESL) program has constituted a differentiation and development for this program. The program admits nearly all non-English-speaking students from the six intermediate schools and feeder schools whose students attend Brandeis. The Bilingual Program is the first school program for many non-English-speaking students who come to Brandeis High School shortly after entering the United States.

In this five-year program, during 1974-75, the third year of the program, the Department of Bilingual Education has served to spearhead a number of new developments. As a regular department within the school it is in a position to seek funds for integrating services around the special needs of bilingual education. The bilingual education department carries out the regular procedures of the school with special services for bilingual students. In the bilingual department intake and counseling, testing, interviewing, assessment and placement of students in respective classes are carried out in ways similar to other services of the school. In addition, the bilingual department attends to the special language and cultural needs of the students.

One may characterize the organization and pattern within the Brandeis High School Bilingual Program as using a combination of homogeneous grouping and heterogeneous grouping.

Some of the special characteristics worth mentioning about the Bilingual Program at Brandeis High School may be called diagnostic grouping. In light of the diagnosed condition or need of students for developing English proficiency, effort is placed upon English as a Second Language (ESL). The grouping of ESL is in terms of five levels. The students begin in level I, and with demonstrated competency move to level II, then to level III, and at the end of level III further differentiation is made between general education and college preparatory education in level IV and level V.

The organization of the courses provides the students with a wide range of courses from ninth through the twelfth grade through the bilingual department. The programming may cut across grade levels for

a particular student through the use of formal testing and teacher assessment of pupil performance. A student may have ninth grade algebra and tenth grade science (biology).

The general pattern in ESL is as follows: in the first level of ESL there are seven classes with pupils grouped heterogeneously following the initial testing. Using school performance rating of students, in ESL II, there are seven classes but with five levels of ability grouping used. In ESL III there are eight classes with five levels of ability grouping used. In the Reading and Composition there are eight classes with five levels with ability grouping provided.

Most students take two ESL classes, two subjects in their dominant language, a language course and one course in physical education each semester. However, since the programs are individualized there are many variations.

In addition Brandeis High School has bi-annual promotions and therefore student regrouping occurs each semester. Teacher recommendations as well as formal testing determines students' new groups for individual programs.

The bilingual curriculum has expanded year by year for given grades. For example, next year 1975-76, some bilingual courses for all four years of the senior high school will be provided in the student's native language. In this way the Bilingual Program will provide an avenue through which a student may proceed through high school rather than view the only path to proficiency in high school as through English as a dominant language. The Bilingual Program places emphasis on the development of English language skills through classes in English as a Second Language as well as on the development of academic skills by providing subject area instruction in the student's native language. This approach makes it possible for students to proceed toward a high school diploma.

There are a number of special features in the Bilingual Program at Brandeis High School. First, the Program provides classes to take into account the rante of ability including those of lower ability. The native language arts classes were designed to serve students who are poor readers in their native language. There

were twelve classes in native language arts for students in this program. In addition, it should be noted that other more able students who read their native language on grade level received Spanish or French language instruction in the regular program in the school's foreign language department.

Another feature of the bilingual program is the inclusion of some students whose dominant language is English, rather than limiting the program only to non-English or foreign language students. These students, whose native language is English, were enrolled in areas such as Spanish as a second language and Latin American history and other courses. In the school year 1974-75 there were a small number of advanced students who took mathematics in the regular Brandeis High School program.

In the school year 1974-75, as will be noted in the report, the bilingual department was required to administer the Language Assessment Battery (LAB) by the Board of Education. This major test administration to over 1200 students in June 1975 took priority over many of the other activities, and required the concerted effort of staff and administration.

General Program Objectives

The general objectives of a bilingual program within the regular high school program are to bring about development of competency in reading and in speaking in both native language and English language skills. In addition, it seeks to continue the overall education of youth through the dominant language whether it be Spanish or French. The involvement of the small number of English-dominant students was a further effort to integrate the department within the regular school program.

A specific non-instructional evaluation objective was used to predict holding power of the Bilingual Program. One indicator of holding power is school attendance rate. It was predicted that there would be better school attendance for students in the Bilingual Program than in the regular program at Brandeis High School and thereby indicate better holding power.

Program Objectives and Evaluation Objectives

The objectives of the program were as follows:

1. Spanish-speaking students in this program will demonstrate statistically significant improvement in their reading ability in Spanish.
2. English-dominant pupils in this program will demonstrate statistically significant improvement in their reading ability in English.
3. All students receiving ESL instruction will show statistically significant improvement in English language skills.
4. English-dominant pupils receiving Spanish language instruction will show statistically significant improvement in Spanish language skills.
5. Spanish and French-dominant pupils receiving mathematics instruction for two semesters will show statistically significant improvement in mathematical skills.
6. Two-thirds of the students in the program will show a higher daily attendance rate than that established for the entire student body at Brandeis High School.
7. To determine the extent to which the program objectives are carried out and the discrepancy between actual operations and the objectives are described in the proposal for the project. In this case we are to indicate the relationship between the specific elements described in the proposal and the actual operations.

Chapter II. EVALUATION OBJECTIVES AND PROCEDURES

Evaluation Objectives. The evaluation objectives are parallel to the respective program objectives for the Bilingual Program. They may be listed as follows:

1. To determine if there is a statistically significant improvement in the ability of Spanish-speaking students in reading Spanish.
2. To determine if there is a statistically significant improvement in the reading scores for English dominant pupils in their ability to read in English.
3. Sixty-seven percent of students will improve one level on the English version of the Puerto Rican Language Fluency Scale.
4. Fifty percent of the English-dominant pupils receiving Spanish-language instruction will improve one level on the Spanish version of the Puerto Rican Language Fluency Scale.
5. To determine whether Spanish and French dominant language pupils receiving mathematics instruction for two or more semesters have shown statistically significant improvement in mathematics skills.
6. To determine if students in the program have a higher daily attendance rate than the attendance rate established for the entire student body at Brandeis High School.
7. To determine the extent to which the program elements as actually carried out, correspond to the description in the proposal.

Procedures

The procedures and the evaluation procedures and instruments used for carrying out the assessment include formal assessment and informal assessment through site visits and observations. The formal measures for each respective objective included a pre- and posttest on the standardized instruments designed to measure each objective.

Since this is a continuous program, the pretest measures from the

end of the preceding academic year were used except in those instances where new students entered the program. For objective one, gain in reading for Spanish-speaking students, the test used was [Prueba de Lectura] Inter-American Reading Tests. The pretest was given in May 1974 and the posttest in May of 1975.

Objective 2.* The gain in reading in English was to be assessed by use of the New York State Reading Comprehension Test for ninth graders. The pretest was given in May of 1974 and the posttest was to be given in May of 1975. For the tenth graders the Metropolitan Achievement Test was to be used.

Objective 3. To assess the improvement by non-English students in English language skills for the English as a Second Language classes, the Puerto Rican Scale of Language Fluency was used.

Objective 4.* For English dominant students expected to gain one level in Spanish-language skills, assessment of improvement in Spanish and/or French, respectively, was to be made in terms of adaptation of the Puerto Rican Scale of Language Fluency to be used in May 1975.

Objective 5. The gain in math skills for non-English-speaking students for the two terms of the 1974-75 period was assessed in terms of the project developed math test and New York City Algebra Test, Forms 1A and 1B. The posttests were conducted in May of 1975.

Objective 6. The objective posited that Bilingual Program students' attendance rate would be higher than the average daily attendance of the regular student body at Brandeis High School. This was assessed in terms of data from five grading periods for the year. The criterion was that the attendance would be 10 percent higher for the students in the Bilingual Program.

Objective 7. This objective pertains to the discrepancy between the description of the program as it was planned and as it was actually carried out.

---

*No data were supplied for these objectives for English-dominant students. Discussion of this discrepancy will be presented in Chapter III on Findings under Objective 7 on page 15.

Methods of Analysis

The design stipulated the use of a series of statistical procedures for the analysis. These included: (1) the correlated t test between pre- and posttests with a level of significance of .05; (2) the t test of difference between percentage or proportions comparing the Bilingual Program results with schoolwide norms; (3) the Sign test of significance of difference between pre- and posttest ratings on the language rating scale; (4) compare the percentage distribution of the attendance rates in terms of percent of attendance rate for the Bilingual Program and the school as a whole.

Chapter III. FINDINGS

There were seven evaluation objectives in this study of the Bilingual Program at Brandeis High School.

The original design called for analysis of the Spanish version of the Puerto Rican Fluency Scale to test the fluency of the English-dominant students in Spanish (objective 4).

Results are reported on objectives 1, 3, 5, 6 and 7 since no test result data for English-dominant students (i.e., objectives 2 and 4) in the Bilingual Department Program for 1974-75 were made available to the evaluator.

The findings from this evaluation are reported in this section. They are reported in line with each respective evaluation objective as stated in the design.

Objective 1

To determine if there is a statistically significant improvement in the ability of Spanish-speaking students in reading Spanish. The pretests were given in May 1974 and posttests in May 1975.

There were complete sets of valid test results for 86 students Pruebas de Lectura (L3Des and L3Ces) (Guidance Testing Associates) which includes testing in reading and comprehension. The results show that the pretest mean score was 38.53 and the posttest mean score was 51.40. The difference between means was 12.87. The standard deviation of difference was 18.100. The sum of the differences was 1081 while the sum of the square of differences was 28.005. The overall t test for the Spanish dominant students was 6.446 which is significant beyond the .05 level. These figures are displayed in Table 1.

Table 1

Test of Significance for Reading in Spanish Dominant Students
Brandeis High School Bilingual Department

N	Pretest Mean	Posttest Mean	X_D	S_D	t
86	38.53	51.40	12.87	18.100	6.446

Results clearly show that for those students who were given both forms of the Inter-American Reading Test, there were significant gains in their reading and comprehension in Spanish. These results, using the correlated t test for analysis, show results significant beyond the .05 level stipulated in the evaluation design. Therefore, for these students the objective was achieved.

Objective 2

To determine if there is a statistically significant improvement in reading for English-dominant pupils in their ability to read English. The New York State Reading Comprehension Test was administered to ninth grade students, a pretest was given in October of 1974 and the posttest was to be given in May of 1975. The pretest Metropolitan Achievement Test was given to tenth graders in May 1974.

Data were not provided to the evaluator on the results of the tests given to students for this objective; therefore further analysis was impossible.

Objective 3

To determine if 67 percent of the pupils receiving ESL instruction improve one level on the English version of the Puerto Rican Language Fluency Scale.

Students were evaluated in their English proficiency on a Puerto Rican Scale of Language Fluency. The assessment was made at the beginning of the school year and posttests were made again in the first week of June 1975. The Sign test was used to assess the differences between the pretest ratings and posttest scores with respect to English proficiency. It was expected that the students would advance at least one level.

A total of 243 students were assessed in both the pre- and posttest ratings on the Puerto Rican Scale of Language Fluency by teachers. For the A scale there were 88 students (some 36 percent) who remained at the same level and were eliminated in the calculation of the changes. Of the [illegible]udents, 146 gained at least one level in the A Scale, while r[illegible]nts declined at least one level or showed a loss. By using [illegible]est of significance for ordinal data an

obtained value of R equal nine was far less than the Sign Table R at .05 level of significance for 155 students. Therefore, it is possible to state that the change or gain in language fluency was significant and reject the null hypothesis. There, it is clear that over 67 percent of the students did gain one or more level in their ability to speak and understand English as measured. Results are depicted in Table 2 below.

Table 2

Sign Test of Significance for Students for Ability to Speak English on Puerto Rican Language Fluency Scales A and B

		Students' Results on Pre-Post Ratings		
Scale	N	Gain of One or More Levels	Loss of One or More Levels	Remained on the Same Level
A	243	146	9*	88
B	227	171	11*	45

*Significant at .05 level or beyond

The same procedure was carried out for Scale B in calculating the Sign test for significance. Of the 227 students who completed the scale 45 remained on the same level and they are not counted in the analysis. Of the 227 students, 171 showed gains between pre- and post-test measures of one or more levels, while 11 showed decline. Using the Sign test of significance for ordinal data an R of 11 was obtained. The critical value at .05 level of significance for R for 182 subjects from the Sign Table R is much greater than the obtained R of 11. Therefore, it is possible to state that the change or gain in language fluency of more than one level for Scale B was significant and one may reject the null hypothesis. The results are depicted in Table 2 above.

It is clear that the objective was obtained, since in ratings for both scales the obtained R was found to be less than the Table R which showed that in ability to speak English the difference between

pre- and posttest gains was significant.*

Objective 4

To determine if 50 percent of the English-dominant pupils receiving Spanish-language instruction will improve one level in Spanish-language skills as measured by the Puerto Rican Fluency Scale.

The assessment of the Spanish or French competency for the students was made by teachers by the use of a French and Spanish version of the Puerto Rican Language Fluency Scale for the English-dominant language students. Since data regarding the results of the ratings were not provided to the evaluator further analysis of this objective cannot be made.

Objective 5

To determine if Spanish and French-dominant pupils receiving mathematics instruction have shown statistically significant improvement in mathematics skills. The evaluation design specified different testing for the advanced group of algebra and the more general and regular mathematics classes.

The assessment of the objective relative to the general and academic mathematics sequence was made in terms of analysis of mean scores for statistical significance at the .05 level with the correlated t test.

There were 177 completed sets of valid test results for general and academic curriculum students used in this analysis of the project developed mathematics skills test. The results show that the pretest mean score was 12.43 and the posttest mean score was 13.75. The difference between means was 1.32 and the standard deviation of differences equals 2.368. The sum of the differences was 184 while the sum of squares of differences was 10064. The overall t test for the students was 5.827 which is significant beyond the .05 level with 176 df. These figures are displayed in Table 3 below.

The 34 students completing the algebra sequence were analyzed by comparing the city-wide algebra examination results for the students with the school-wide norms. It was predicted that the mean scores of these respective math students in the Bilingual Program would be

*W. J. Dixon and F. J. Massey, Introduction to Statistical Analysis (New York: McGraw-Hill, 1969), p. 509.

significantly higher than the mean scores of the students in the regular program.

Table 3

Test of Significance for Mathematics
Brandeis High School Bilingual Department

N	Pretest	Posttest	X_D	S_D	t
177	12.43	13.75	1.32	2.368	5.827

There were 180 students in the regular school program who took algebra during 1974-75 and 34 in the Bilingual Program for whom we would have end of semester scores. The mean for the school on the citywide algebra examination was 58 for the bilingual students and 59 for the students in the regular program, a mean difference of one point. The statistical analysis of the difference between two means revealed that the critical ratio was .0331 which was not significant at the .05 level and that the differences could be due to chance. The null hypothesis must be accepted that there were no significant differences between the two groups.

These results do not show significant differences in algebra between the Bilingual Program students and the regular program students. The program objective was not attained for the algebra students from the Bilingual Program, but the students did only about the same as the students in the regular program. The results may be depicted in Table 4 below.

Table 4

Test of the Significance for the Difference Between Mean Percent of Students in Bilingual Program and Those in Regular Program on Citywide Algebra Examination

Algebra Program	N Students	Citywide Algebra Mean Exam Score	t
Regular	180	59	
Bilingual	34	58	.0331

Objective 6

To determine if students in the Bilingual Program will have a higher daily attendance rate than the rate established for the entire student body at Brandeis High School. The special nature of the Bilingual Program was expected to provide added incentives to students for attending school. It was expected that the program holding power would be reflected in terms of better daily attendance in the Bilingual Program than the regular program.

The assessment of the attendance was based upon school records for attendance pertaining to students in the Bilingual Program as well as those within the regular program. The procedures used included the attendance for the students in the Bilingual Program during the first five grading periods and the attendance for the student body as a whole during the first five grading periods (September 1974-May 1975). It was predicted that two-thirds of the students in the Bilingual Program would have a daily attendance rate which is at least 10 percent higher than the attendance rate of the school as a whole. The average daily attendance for Brandeis High School was 74 percent for the school year. In line with the criterion set for the bilingual program, two-thirds of the students would be present at a rate of 10 percent higher than the regular school students. That would mean present 85 percent of the time. Since the average school attendance rate for the year was 74 percent, this meant that two-thirds of the students in the Bilingual Program were expected to have been present 85 percent or more of the time during the school year. A review of attendance records revealed that the attendance criteria was exceeded by the students in the Bilingual Program. The results are depicted in Table 5 and clearly show the objective was achieved. A detailed analysis of results showed the outstanding attendance record for the various subgroups in the Bilingual Program.

Using the 159 days of school attendance for the nine-month period as a basis, a summary of number of days present and days absent for each student in the Bilingual Program was collected and the data were analyzed. There were a total of 159 days in the school year from

September to May. There were 84 percent of the students in the bilingual department who attended school more than 85 percent of the time. This is above the criterion of two-thirds who attended 10 percent more than the overall regular student body.

The attendance record of the students in the bilingual department was outstanding. Among the French-dominant students 91 percent were present 85 percent of the time or more; over 63 percent were there 95 percent of the time; another 22 percent were there at least 90 percent of the time. Only four French-dominant students were in school less than 85 percent of the time. The attendance rate exceeds the criterion for this objective.

Spanish-dominant language students presented a similar pattern of attendance with an overall of 83 percent of the students present in school more than 85 percent of the school year. Of the Spanish-dominant students, 47 percent were present 95 percent of the school days, while another 11 percent were present at least 85 percent of the time. The percentage of attendance for the students in the Bilingual Program exceeded the criterion. The results depicted in Table 5 clearly show that the objective was achieved.

Objective 7

To determine the extent to which the program, as actually carried out, coincided with the program as described in the project proposal. In this case we are to indicate the relationship between the specific elements described in the proposal and the actual operations. The discussion of results of analysis and observations will be presented in the following order: (1) Bilingual Department as an integral part of the Brandeis High School program; (2) guidance functions within the Bilingual Program; (3) staff professional commitment to the Bilingual Department program; (4) the range of testing and evaluation procedures; and (5) the discrepancy between the number of students in the program and the sample reported in the test results.

On the basis of visits and interviews with administration, faculty and students, it is concluded that the Bilingual Department has the same range of services that the students in the regular high school program of the school have. Comments regarding the operation apply to the

regular school therefore, to some extent as well as the Bilingual Department.

Table 5

Distribution of Students and School Attendance

Total Days Present	Percent Present	French	Spanish	Combined Total	Percentage
151-159	95-100	31	216	247	47.0
143-150	90-94	11	120	131	25.0
135-142	85-89	3	57	60	11.3
127-134	80-84	1	32	33	6.0
119-126	75-79	1	24	25	4.7
111-118	70-74	--	13	13	2.5
103-110	65-69	1	4	5	0.96
95-102	60-64	1	4	5	0.96
87-94	55-59	--	1	1	0.19
80-86	Below 54	--	--	--	
Total		49	471	520	

The Bilingual Program is organized in terms of grade advisors who have the responsibility for program scheduling of a group of students. The guidance counselor provided services that relate to health, learning disabilities and intake as well as matriculation. The Dean provides the home contacts and handles any discipline matters that arise.

In terms of guidance functions in the Bilingual Program, a number of approaches were used. Each student's program is individually scheduled twice a year so as to meet school requirements and the needs and abilities of the student. The variations in classes and levels allows for assignments to be made in line with ability grouping. Therefore individual programming is made by class scheduling. Further individualization at the classroom level depends upon each respective teacher taking into account the learning style of each student in the use of

instructional techniques.

On the basis of interviews, observation and analysis of materials with students, staff and administration of the program, the evaluator may report a high level of professional commitment and dedication on the part of all interviewed. Teachers are very conscientious in their interest in professional issues and curriculum improvement. There is a spirit of mutual aid, collaboration and sharing of recently developed materials. In each classroom there was clear evidence of careful lesson planning, and the full range of involvement of students.

The school has biannual promotions and graduations each semester. Twice a year complete program changes are made. The implications of this program shift and scheduling of classes are related to the evaluation. For a number of the areas students may take a required course one semester and then pick up another course the second semester. This is one of the reasons for the smaller sample of students for whom completed tests were available.

In addition to tests in the evaluation design, many are used by the Brandeis Bilingual program in line with the project program description. These include teacher-made classroom tests, department developed tests, standard uniform examinations used within the school and New York citywide examinations, and a range of published examinations used as part of formal evaluation. Examinations in Spanish and French as well as English were required for many situations. In addition to the regular testing for each respective course and citywide examinations for given courses, this year in June the Bilingual Department was required to administer the Language Assessment Battery (LAB) for the Board of Education. The addition of the LAB to the already crowded testing schedule at the end of the school year produced great demands upon teachers, administration and test-weary students. This action may be said to have contributed to the delay in the completion of the posttest evaluation information for this report, since the LAB had priority over all other testing.

The administration of the LAB required special attention and individual administration for four sections. Plans were made for posttesting students in September, but were delayed due to the school strike at the beginning of the school year. Then, further testing on the LAB

was required for students who were absent during the spring semester. The administration of the LAB took considerable time and energy of students, teachers and administrators.. The LAB took priority over the follow-up of the other types of testing scheduled and some of the tests for the bilingual evaluation were therefore not completed. The records for Bilingual Program students of the pretests alone could not be used for statistical analysis.

The evaluator observed the classes of the English-dominant students in the Bilingual Department. Interviews were held with administrators, teachers and students. Students were found to be integrated into the full range of activities in the Bilingual Department and into the school.

No test results for the English-dominang language students in the program were reported this year. This was due to a number of reasons. The data that were collected on the pretest basis were scattered and uneven, and plans were made for subsequent posttesting of the English-dominant students. The major reason given by staff was that near the end of the school year, in June, the department was required to administer the LAB of the Board of Education, as well as the regular end-of-year testing battery to Spanish-dominant students. The new testing procedures for LAB, in addition to the regular testing, were very demanding upon the regular staff, administration, and students. This event led to a delay in completing the evaluation report on schedule.

The post-test data were missing, but the record should note the range of services were provided for English-dominant students. In many instances the prestests were administered, and posttesting was scheduled to be carried out. In June, near the end of the semester, the administrative and teaching staffs were required to devote their major energies in addition to the regular teaching tasks to the administration of the New York City Board of Education Language Assessment LAB Battery to over 1200 students.

In the light of the complexity and demands of the testing the staff clearly expressed the need to add a staff person to coordinate the full range of testing and evaluation.

There were differences between the number of students enrolled and the sample of completed tests analyzed in this evaluation. This was due to several reasons. First, many of the students enrolled completed some of the tests, but a number were found to be incomplete, either with one pre-test score, but no posttest score, or the tests were invalid for other reasons. Second, due to the biannual promotion, a number of students enrolled in courses for the fall semester who had completed the pretests, were then switched to another "required" course during the spring semester, and therefore missed the posttest evaluation in June. Third, the current system used for student records within the school is complex. It made retrieval of data on transfer students a difficult task requiring additional time. This task did not have high priority for the already overworked staff. In the light of the situation the evaluator had to rely upon the data of complete and valid test results for the statistical analysis.

In summary, the Bilingual Program served over 500 students. The sample of tests reported in this evaluation gives an overall view of the Bilingual Program. The number of students who completed the Spanish reading tests were fewer than the expected 75 percent. However, of the 220 mathematics students, completed test results were reported for 177 or 80 percent of the students. Of the algebra students 34 or 100 percent of the tests were analyzed. Finally the records of the pupils' daily attendance were excellent for nearly 100 percent of the students enrolled.

Chapter IV. SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Findings Summarized

There were seven major evaluation objectives; data were obtained and reported on five objectives, since no data were available on the small number of English-dominant students enrolled in the Bilingual Program.

The first objective was to find out if the Spanish-speaking students showed significant improvement in their reading of Spanish. Results showed that the students did show significant improvement and the objective was achieved.

The second objective was to assess reading change in English for English-dominant pupils. No data were available from this group; therefore, this evaluation cannot comment on the objective.

The third objective was to determine if the Spanish-speaking and French students showed significant improvement in ability to speak and to understand English. Results showed that a significant number of students showed gain of one or more levels in the rating used and therefore one may infer that the objective was achieved.

The fourth objective was to assess the Spanish-speaking and understanding of the English-dominant group in the Bilingual Program, but since no data were obtained for this group one must remain silent on this objective.

The fifth objective was to determine if there was significant improvement in general mathematics and algebra as compared with the overall mean scores for the regular program of the school. The results for the general and academic groups did show that the Bilingual Program students got significantly better results than comparable students in the regular program. The results in algebra did not show significant differences between the students in the regular program and the students from the Bilingual Program. Their scores were about the same.

The sixth objective predicted that the students in the Bilingual Program would have a significantly better average in daily attendance than the students from the regular program for the school. Results show that the students in the Bilingual Program have significantly higher average

daily attendance than the students from the regular program of Brandeis High School.

The seventh objective assessed the degree to which the program proposal was carried out in actual operations. The results indicated that overall the program was carried out in line with the program proposal.

As noted earlier in this report, on the basis of interviews, observations and the analysis of the materials from the staff, the administrators of the program, and the students, the evaluator found a very high level of professional commitment and dedication on the part of all interviewed toward the further development of the goals of the program.

Conclusions

It is possible to conclude from this evaluation that students in the Bilingual Program at Brandeis High School did show significant gains in reading in Spanish, speaking in English and in their mathematics skills. The average daily attendance of the students in the Bilingual Program was significantly higher than that of the regular school. The Bilingual Program did deliver the services as described in the proposal.

On the basis of evidence gathered during the year it has been concluded that the Bilingual Department is an integral functioning part of the school. The program has the regular range of services and additional bilingual emphasis. The students are integrated into the full range of school activities. The programs are held in the main building and the program is not separated from other areas. It appears that students in the Bilingual Department Program operate on equal status with students in other programs in the school.

In terms of the overall testing schedule and administration, the demands for services upon administration by this program are monumental. The curriculum, the scheduling, records, and overall administration are carried out with a small staff.

The testing requirements are not only for the Bilingual Program evaluation, but also for Title I ESEA and the other regular school testing. In the light of this, the fact that the Board of Education

required the use of the Language Assessment Battery (LAB) in the school was very demanding upon the students, staff and administration.

The initial evaluation did not begin until February and the final evaluation design was not available until April 1975. The evaluator made many efforts to secure pretest data in March. This was not successful. The entire body of pre- and posttest data were collected at the end of the school year when all other semester-end tasks culminated, plus the administration of the LAB.

Recommendations

On the basis of findings from this evaluation, the following recommendations are made:

1. In line with the overall design, the testing pattern should be reviewed early in the school year and coordinated for each respective objective and the timetable followed.

2. Master lists and forms for data collection should be jointly prepared and pretest data collected early in the spring semester. This will minimize the amount of data needed at the end of the school year.

3. Regular school visits should be carried out in relationship to testing and data recorded on appropriate forms.

4. The program should secure special staff to carry out testing coordination and further item analysis of project developed tests. This would allow refinement and cross validation of tests with other bilingual departments.

5. The role of the small number of English-dominant students in the Bilingual Program needs to be clarified further, since there were no data on this group this year, one must remain silent about the effectiveness of this component.

6. Finally, it is recommended that the Bilingual Program be refunded and that additional resources be made available to as to assure the continued development of the curriculum in line with the evidence presented in this evaluation.